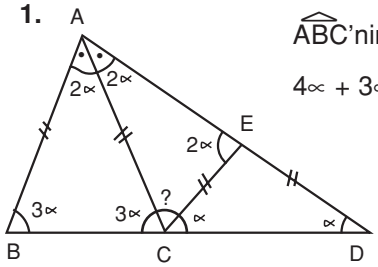
Üçgen ve Üçgende Açılar

TEST 3

1.



$\widehat{ABC}$'ninde,

$4\propto + 3\propto + \propto = 180°$

$8\propto = 180°$

$\boxed{4\propto = 90°}$

$s(\widehat{ACE}) = 180 - (3\alpha + \propto) = 180 - 4\alpha$

$= 180 - 90$

$= 90°$

Cevap: A

2. $s(A^{\prime}) = 180 - a$ ($A^{\prime}$: A'nın dış açısı)

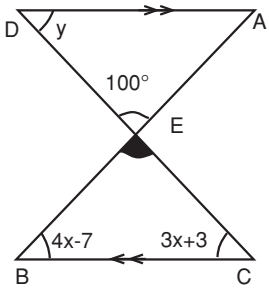
$x + 180 - a + y = 360°$

$$\begin{array}{rl} - & x + y - a = 180° \\ + & x + y + a = 260° \\ \hline & \end{array}$$

$2a = 80° \Rightarrow a = 40°$

Cevap: B

3.



$\widehat{BCE}$'ninde,

$100 + \underline{4x} - 7 + \underline{3x} + 3 = 180°$

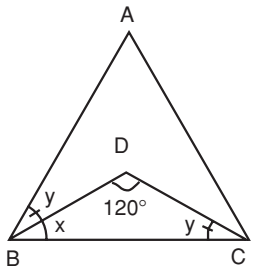
$7x = 84 \Rightarrow \boxed{x = 12}$

$y = 3x + 3$ (İç ters açılar)

$y = 3 \cdot 12 + 3 = 39°$

Cevap: D

4.



$\widehat{DBC}$ 'ninde,

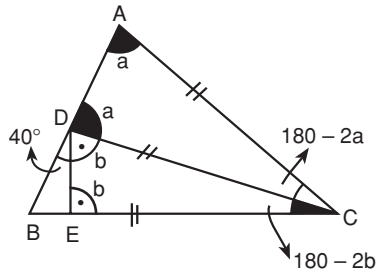
$x + y + 120° = 180°$

$x + y = x + y = 60°$

$s(\widehat{ABC}) = 180°$

Cevap: C

5.



$a + b + 40 = 180$

$a + b = 140$

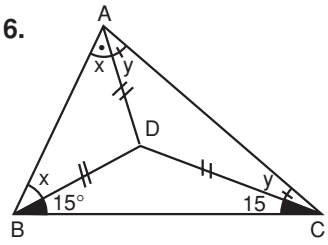
$s(\widehat{BCA}) = 180 - 2a + 180 - 2b$

$= 360 - 2(a + b)$

$= 360 - 2 \cdot 140 = 80°$

Cevap: D

6.



$\widehat{ABC}$ 'ninde,

$(x + y) + (x + 15) + (y + 15) = 180°$

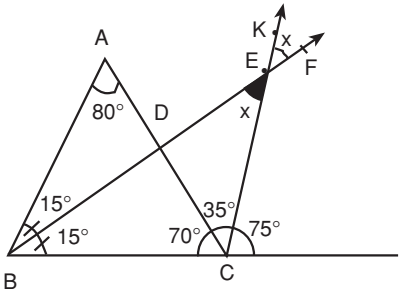
$2x + 2y + 30° = 180°$

$x + y = 75°$

$s(\widehat{BAC}) = x + y = 75°$

Cevap: A

7.



$\widehat{EBC}$ 'ninde,

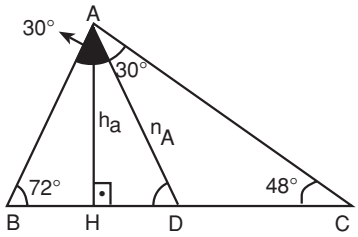
$x + 70° + 35° + 15° = 180°$

$x + 120° = 180°$

$\Rightarrow x = 60°$

Cevap: C

8.



$s(\widehat{BAD}) = s(\widehat{DAC})$ (açıortay)

$\widehat{ABC}$ 'ninde,

$s(\widehat{B}) + s(\widehat{C}) + s(\widehat{A}) = 180°$

$\Rightarrow 72° + 48° + s(\widehat{A}) = 180° \Rightarrow s(\widehat{A}) = 60°$

$s(\widehat{BAD}) = s(\widehat{DAC}) = \dfrac{s(\widehat{A})}{2} = 30°$

$s(\widehat{HDA}) = 48° + 30° = 78°$

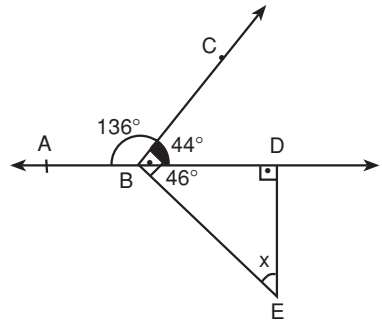
$\widehat{AHD}$ 'ninde,

$90° + 78° + s(\widehat{HAD}) = 180°$

$\Rightarrow s(\widehat{HAD}) = 12°$

Cevap: D

9.

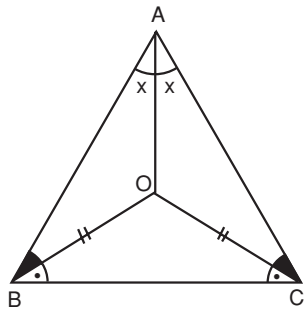


$\widehat{BDE}$ 'ninde,

$46° + 90° + x = 180° \Rightarrow x = 44°$

Cevap: C

10.



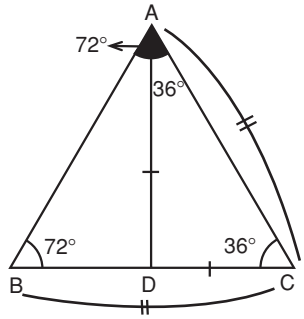
$s(\widehat{A}) = s(\widehat{B}) = s(\widehat{C}) = 60°$

$s(\widehat{A}) = x + x = 2x = 60°$

$\Rightarrow x = 30°$

Cevap: A

11.



$\widehat{ABC}$ 'ninde,

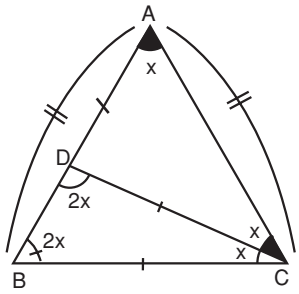
$72° + 72° + s(\widehat{C}) = 180°$

$\Rightarrow s(\widehat{C}) = 36°$

$\Rightarrow s(\widehat{DAC}) = 36°$

Cevap: C

12.



$\widehat{ABC}$ 'ninde,

$2x + 2x + x = 180°$

$\Rightarrow x = 36°$

$\Rightarrow s(\widehat{ABC}) = 2x = 2 \cdot 36 = 72°$

Cevap: B

13. $s(C') = 180 - z$

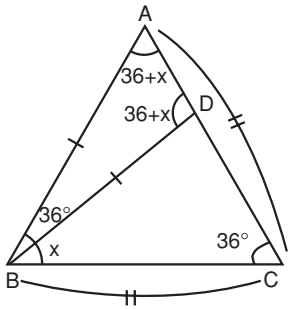
Dış açılar toplamı 360° dir.

$\underbrace{x + y}_{4z} + 180 - z = 360°$

$3z + 180° = 360° \Rightarrow z = 60°$

Cevap: D

14.



$\widehat{ABC}$ 'ninde,

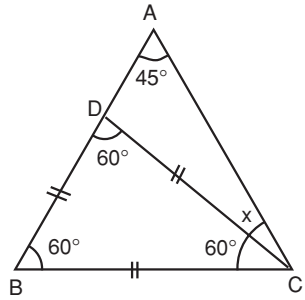
$36 + x + 36 + x + 36 = 180°$

$108 + 2x = 180°$

$\Rightarrow x = 36°$

Cevap: B

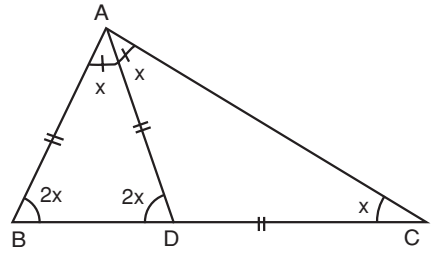
15.



$\Rightarrow 45° + x = 60° \Rightarrow x = 15°$

Cevap: D

16.



$\widehat{ABD}$ 'ninde,

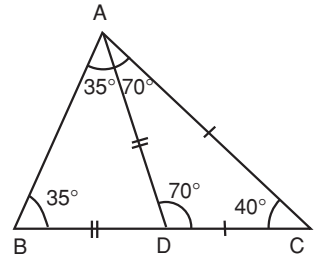
$2x + 2x + x = 180°$

$\Rightarrow x = 36°$

$\Rightarrow s(\widehat{BAC}) = 2x = 2 \cdot 36 = 72°$

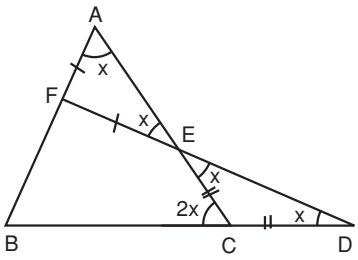
Cevap: A

17.



Cevap: C

18.



$s(\widehat{ACB}) - s(\widehat{A}) = 20°$

$s(\widehat{A}) = x$ olsun.

$s(\widehat{ACB}) = x + 20°$ olur.

$s(\widehat{ACB}) = 2x = x + 20°$

$\Rightarrow x = 20°$

$\widehat{ABC}$ üçgeninde

$s(\widehat{B}) + 2x + x = 180°$

$s(\widehat{B}) + 3 \cdot 20° = 180°$

$s(\widehat{B}) = 120°$

Cevap: B